

CLAIMS

What is claimed is:

- 1 1. A system for interactively viewing enterprise metadata,
2 comprising:
3 a memory for storing a data structure in the form of a graph, with
4 nodes representing asset metadata for enterprise data assets and edges
5 representing relationships between asset metadata;
6 a path finder for generating at least one path within the graph
7 satisfying prescribed constraints; and
8 a report generator for generating a report about the graph, based
9 on paths generated by said path finder.
- 1 2. The system of claim 1 further comprising a web portal user
2 interface, through which said report generator is activated.
- 1 3. The system of claim 1 further comprising a viewer tool user
2 interface, through which said report generator is activated.
- 1 4. The system of claim 1 wherein the report is an impact analysis
2 report, describing the impact on the asset metadata, of at least one prescribed
3 modification to a portion of the asset metadata.
- 1 5. The system of claim 1 wherein the report is an impact analysis
2 report, describing the impact on the enterprise data assets, of at least one
3 prescribed modification to a portion of the asset metadata.
- 1 6. The system of claim 1 wherein the report is a transformation
2 planning report, describing steps to transform data from one asset to another.
- 1 7. The system of claim 1 wherein the report is a data quality report,
2 describing steps to verify compliance of asset data with at least one prescribed
3 business rule.
- 1 8. The system of claim 1 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that correspond
3 with a prescribed asset metadata.

1 9. The system of claim 8 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that are
3 equivalent to a prescribed asset metadata, in the sense that the corresponding data
4 is represented the same way.

1 10. The system of claim 8 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that are
3 equivalent to a prescribed asset metadata, in the sense that the corresponding data
4 is represented in an equivalent way.

1 11. The system of claim 8 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that are logically
3 dependent on a prescribed asset metadata.

1 12. The system of claim 8 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets upon which a
3 prescribed asset metadata is logically dependent.

1 13. The system of claim 8 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that correspond
3 with a prescribed asset metadata, and have a more specific context.

1 14. The system of claim 8 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that correspond
3 with a prescribed asset metadata, and have a more general context.

1 15. The system of claim 8 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that comprise
3 data corresponding with a prescribed asset metadata.

1 16. The system of claim 8 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that correspond
3 to data comprised within a prescribed asset metadata.

1 17. The system of claim 1 wherein the report is a statistical summary
2 report describing statistics about the asset metadata.

1 18. The system of claim 17 wherein the statistical summary report
2 describes a distribution of enterprise data assets based on at least one descriptor.

1 19. The system of claim 18 wherein the statistical summary report
2 describes a distribution of enterprise data assets based on owner.

1 20. The system of claim 18 wherein the statistical summary report
2 describes a distribution of a enterprise data assets based on a quality level.

1 21. The system of claim 1 further comprising a data redundancy
2 analyzer for identifying redundancies among the enterprise data assets.

1 22. The system of claim 21 wherein the report is a plan for
2 eliminating redundancies among the enterprise data assets.

1 23. The system of claim 1 wherein the report is a comparison report,
2 comparing metadata for at least one enterprise data asset with metadata for a
3 specific enterprise data asset designated as a base for comparison.

1 24. The system of claim 23 wherein the comparison report indicates
2 metadata for the at least one enterprise data asset that corresponds with metadata
3 for the specific enterprise data asset, and has a more general context.

1 25. The system of claim 23 wherein the comparison report indicates
2 metadata for the at least one enterprise data asset that corresponds with metadata
3 for the specific enterprise data asset, and has a more specific context.

1 26. The system of claim 1 further comprising a code generator, for
2 generating program code instructions corresponding to a report.

1 27. The system of claim 26 wherein the program code instructions
2 are expressed as SQL script.

1 28. The system of claim 26 wherein the program code instructions
2 are expressed as XSLT script.

1 29. The system of claim 26 wherein the program code instructions
2 are expressed as Java code.

1 30. The system of claim 26 wherein the program code instructions
2 are expressed as a transformation planning report, describing steps to transform
3 data from one asset to another.

1 31. The system of claim 1 further comprising a request-for-change
2 generator, for generating a request to apply at least one modification to the graph.

1 32. The system of claim 31 wherein said request-for-change
2 generator enforces at least one approval process for the request.

1 33. The system of claim 1 wherein the graph includes nodes for an
2 ontology model, into which asset metadata is mapped.

1 34. The system of claim 33 wherein the ontology model is a generic
2 industry model.

1 35. The system of claim 33 wherein the ontology model is an
2 enterprise specific model.

1 36. The system of claim 33 wherein edges connect pairs of nodes
2 that correspond to metadata that is mapped to one another.

1 37. The system of claim 33 wherein the report is a statistical
2 summary report describing a percentage of enterprise data assets for which asset
3 metadata is mapped to the ontology model.

1 38. The system of claim 33 wherein the report is a statistical
2 summary report describing a percentage of enterprise data assets for which asset
3 metadata is completely mapped to the ontology model.

1 39. The system of claim 33 wherein the report is a statistical
2 summary report describing a percentage of enterprise data assets for which asset
3 metadata is partially mapped to the ontology model.

1 40. The system of claim 33 wherein the report is a comparison
2 report, comparing metadata for at least one enterprise data asset with metadata for
3 the ontology model.

1 41. The system of claim 40 wherein the comparison report indicates
2 metadata for the at least one enterprise data asset that corresponds with metadata
3 for the ontology model, and has a more general context.

1 42. The system of claim 40 wherein the comparison report indicates
2 metadata for the at least one enterprise data asset that corresponds with metadata
3 for the ontology model, and has a more specific context.

1 43. The system of claim 1 further comprising an access controller for
2 restricting a user's access to asset metadata based on a user privilege.

1 44. The system of claim 1 further comprising an access controller for
2 restricting a user's access to asset metadata based on a requested action.

1 45. The system of claim 1 further comprising an access controller for
2 restricting a user's access to asset metadata based on a subject area of asset
3 metadata.

1 46. The system of claim 1 further comprising a filter for displaying
2 different parts of the asset metadata to different types of users.

1 47. The system of claim 1 further comprising a filter for displaying
2 different parts of the asset metadata to technical and non-technical users.

1 48. The system of claim 1 further comprising a filter for displaying
2 asset metadata in different formats to different types of users.

1 49. A method for interactively viewing enterprise metadata,
2 comprising:
3 providing a data structure in the form of a graph, with nodes
4 representing asset metadata for enterprise data assets and edges representing
5 relationships between asset metadata;

6 generating at least one path within the graph satisfying
7 prescribed constraints; and
8 generating a report about the graph, based on paths generated by
9 said path finder.

1 50. The method of claim 49 wherein the report is an impact analysis
2 report, describing the impact on the asset metadata, of at least one prescribed
3 modification to a portion of the asset metadata.

1 51. The method of claim 49 wherein the report is an impact analysis
2 report, describing the impact on the enterprise data assets, of at least one
3 prescribed modification to a portion of the asset metadata.

1 52. The method of claim 49 wherein the report is a transformation
2 planning report, describing steps to transform data from one asset to another.

1 53. The method of claim 49 wherein the report is a data quality
2 report, describing steps to verify compliance of asset data with at least one
3 prescribed business rule.

1 54. The method of claim 49 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that correspond
3 with a prescribed asset metadata.

1 54. The method of claim 53 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that are
3 equivalent to a prescribed asset metadata, in the sense that the corresponding data
4 is represented the same way.

1 56. The method of claim 54 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that are
3 equivalent to a prescribed asset metadata, in the sense that the corresponding data
4 is represented in an equivalent way.

1 57. The method of claim 54 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that are logically
3 dependent on a prescribed asset metadata.

1 58. The method of claim 54 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets upon which a
3 prescribed asset metadata is logically dependent.

1 59. The method of claim 54 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that correspond
3 with a prescribed asset metadata, and have a more specific context.

1 60. The method of claim 54 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that correspond
3 with a prescribed asset metadata, and have a more general context.

1 61. The method of claim 54 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that comprise
3 data corresponding with a prescribed asset metadata.

1 62. The method of claim 54 wherein the report is a data discovery
2 report, displaying asset metadata within the enterprise data assets that correspond
3 to data comprised within a prescribed asset metadata.

1 63. The method of claim 49 wherein the report is a statistical
2 summary report describing statistics about the asset metadata.

1 64. The method of claim 63 wherein the statistical summary report
2 includes a distribution of enterprise data assets based on at least one descriptor.

1 65. The method of claim 64 wherein the statistical summary report
2 includes a distribution of enterprise data assets based on owner.

1 66. The method of claim 64 wherein the statistical summary report
2 includes a distribution of a enterprise data assets based on a quality level.

1 67. The method of claim 49 further comprising identifying
2 redundancies among the enterprise data assets.

1 68. The method of claim 67 wherein the report is a plan for
2 eliminating redundancies among the enterprise data assets.

1 69. The method of claim 49 wherein the report is a comparison
2 report, comparing metadata for at least one enterprise data asset with metadata for
3 a specific enterprise data asset designated as a base for comparison.

1 70. The method of claim 69 wherein the comparison report indicates
2 metadata for the at least one enterprise data asset that corresponds with metadata
3 for the specific enterprise data asset, and has a more general context.

1 71. The method of claim 69 wherein the comparison report indicates
2 metadata for the at least one enterprise data asset that corresponds with metadata
3 for the specific enterprise data asset, and has a more specific context.

1 72. The method of claim 49 further comprising generating program
2 code instructions corresponding to a report.

1 73. The method of claim 72 wherein the program code instructions
2 are expressed as SQL script.

1 74. The method of claim 72 wherein the program code instructions
2 are expressed as XSLT script.

1 75. The method of claim 72 wherein the program code instructions
2 are expressed as Java code.

1 76. The method of claim 72 wherein the program code instructions
2 are expressed as a transformation planning report, describing steps to transform
3 data from one asset to another.

1 77. The method of claim 49 further comprising generating a request
2 to apply at least one modification to the graph.

1 78. The method of claim 77 further comprising enforcing at least one
2 approval process for the request.

1 79. The method of claim 49 wherein the graph includes nodes for an
2 ontology model, into which asset metadata is mapped.

1 80. The method of claim 79 wherein the ontology model is a generic
2 industry model.

1 81. The method of claim 79 wherein the ontology model is an
2 enterprise specific model.

1 82. The method of claim 79 wherein edges connect pairs of nodes
2 that correspond to metadata that is mapped to one another.

1 83. The method of claim 79 wherein the report is a statistical
2 summary report describing a percentage of enterprise data assets for which asset
3 metadata is mapped to the ontology model.

1 84. The method of claim 79 wherein the report is a statistical
2 summary report describing a percentage of enterprise data assets for which asset
3 metadata is completely mapped to the ontology model.

1 85. The method of claim 79 wherein the report is a statistical
2 summary report describing a percentage of enterprise data assets for which asset
3 metadata is partially mapped to the ontology model.

1 86. The method of claim 79 wherein the report is a comparison
2 report, comparing metadata for at least one enterprise data asset with metadata for
3 the ontology model.

1 87. The method of claim 86 wherein the comparison report indicates
2 metadata for the at least one enterprise data asset that corresponds with metadata
3 for the ontology model, and has a more general context.

1 88. The method of claim 86 wherein the comparison report indicates
2 metadata for the at least one enterprise data asset that corresponds with metadata
3 for the ontology model, and has a more specific context.

1 89. The method of claim 49 further comprising restricting a user's
2 access to asset metadata based on a user privilege.

1 90. The method of claim 49 further comprising restricting a user's
2 access to asset metadata based on a requested action.

1 91. The method of claim 49 further comprising restricting a user's
2 access to asset metadata based on a subject area of asset metadata.

1 92. The method of claim 49 further comprising displaying different
2 parts of the asset metadata to different types of users.

1 93. The method of claim 49 further comprising displaying different
2 parts of the asset metadata to technical and non-technical users.

1 94. The method of claim 49 further comprising displaying asset
2 metadata in different formats to different types of users.

1 95. A computer-readable storage medium storing program code for
2 causing a computer to perform the steps of:
3 providing a data structure in the form of a graph, with nodes
4 representing asset metadata for enterprise data assets and edges representing
5 relationships between asset metadata;
6 generating at least one path within the graph satisfying
7 prescribed constraints; and
8 generating a report about the graph, based on paths generated by
9 said path finder.